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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,283	03/04/2002	Theodore L. Wolf	DYC-10-5598	6591
23266	7590	06/15/2004	EXAMINER	
DRIGGS, LUCAS, BRUBAKER & HOGG CO., L.P.A. DEPT. DLBH 8522 EAST AVENUE MENTOR, OH 44060			SAETHER, FLEMMING	
		ART UNIT	PAPER NUMBER	
		3677		

DATE MAILED: 06/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/090,283	WOLF ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Flemming Saether	3677

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-20 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____.   |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____.  | 6) <input type="checkbox"/> Other: _____.                                   |

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-20 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The higher metal density as by forging being only at the splines is considered new matter. The "forged splines" as originally presented was not necessarily limited to only the splines as now required by the different densities.

***Specification***

The disclosure is objected to because of the following informalities: the specification must provide for claim terminology, as such the relative densities should be discussed. There is also no discussion of the "metal grain flow contour".

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Claims 1, 3-7 and 9-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hollinger in view of Wesley (US 2,378,610). Hollinger discloses a locknut and method comprising a body (11) having a threaded bore (14) with its length about equal to its diameter and an aperture (16) formed at the top end of the body including a plurality of forged splines elements (19') extending from a top surface of the body to an actuating wall (15) which is provided at an angle relative thereto. The splines having an engagement edge with adjacent splines separated by a void. A deformable locking member (17) having an inner surface larger than the threaded bore and an outer surface engaged by the splines (column 3, lines 46-51) which inherently would include the engagement edge. The volume of the deformable locking member being greater than that of the aperture such that as the nut is tightened on a threaded rod, the deformable member is forced to flow against the threaded rod and an engaging surface (Figs. 5 and 6) which would provide both a sealing and a protection against loosening such as would be caused by vibration. At the nut body is further tightened or backed off the threaded rod the forces applied against the deformable member increase and reduce respectively. Hollinger is not specific on how the splines are formed. Wesley discloses locknut including a plurality of splines (17) which are formed by a forging operation (see Fig. 5). At the time the invention was made, it would have been obvious for one of ordinary skill in the art to make the splines in Hollinger by a forging operation as disclosed in Wesley because Wesley discloses an efficient method of making a locknut as described therein. The efficient method including the forging as disclosed would be an economical method of making the locknuts. The specific

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dimension would have been recognized depending upon the particular application of the nut since it is well known to provide nuts of varying sizes depending upon its intended use.

Claims 2 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hollinger in view of Wesley as applied to claims 1 and 7 above, and further in view of Heighberger (US 3,938,571). Heighberger is relied upon for the material of the deformable member. At the time the invention was made, it would have been obvious for one of ordinary skill in the art to make the deformable member of Hollinger out of polytetrafluoroethylene as disclosed in Heighberger for its excellent quality of elastic memory as described therein.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-20 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-19 of copending Application No. 10/298,119. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the instant invention are drawn to the same subject matter as the claims of 10/298,119 application only the claims of the instant application are broader.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***In response to Remarks***

It is noted that the arguments and responses set forth below generally mirror those of the related application, 10/298,119.

Applicant argues that Hollinger does not disclose in the increased material density at the splines. In response, the examiner agrees but, the reference to Wesley had been applied for its teaching of the increased material density as is subsequently discussed.

Applicant argues that Hollinger does not disclose the threaded body length to be "about equal" to thread diameter. The examiner does not dispute the significance of the limitation as defined in the specification nor does the examiner dispute that Hollinger provides no disclosed significance to the limitation. However, it cannot be

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overlooked that Hollinger does in fact show the limitation of the threaded body length being “*about equal*” [emphasis added] to the thread diameter. It is irrelevant that the limitation is given significance only in applicant’s disclosure since it relied upon as a stand alone feature and is not modified in any way. It should also be noted that Hollinger does not teach away from the relative dimension, simply because it is not discussed does not mean it is not shown. In that regard, applicant further argues that Hollinger does not show the dimensions being about equal and that it is improper to compare it to In re Mraz. In response, the examiner disagrees again because the showing in Hollinger is the dimensions being about equal in each of Figs. 2, 4, and 6. Furthermore, it is the examiner’s opinion that the issue of the dimensions being “*about equal*” is directly related to the issue decided in In re Mraz. Specifically, as in In re Mraz scaling would not be necessary to convey relative dimensions being “*about equal*”. Indeed, as the size, or scale, of the fastener is increased and/or decreased the dimensions would remain “*about equal*” since it is a relative value. In other words, as the length of the threaded body is increased or decreased the diameter would also be increased and decreased accordingly and the relative dimensions being “*about equal*” would not change.

Applicant also argues that Hollinger does not disclose the area of the spline being having a greater material density. As in the related application, the reference to Wesley was applied to teach the material density being greater at the splines. The use of the same reference hopefully will simplify the issues. Applicant anticipated the

rejection based in the related application and argue it accordingly relying on declaration of the applicant which states that "Wesley does not teach 'forging' as understood in the [art]". In response, the claims no longer include "forging" but instead require the material at the splines to be denser. Regardless of the terminology, Wesley discloses splines are formed with application of pressure by a press inherently which would provide for a denser material.

Applicant argues claims 14-19 in that the prior art applied in particular, neither Wesley nor Hollinger disclose the specific dimensions claimed. In response, the examiner agrees however, it is well known in the art to make fasteners of different sizes and of different pitch depending upon the intended application of the fastener. In other words, it is known to provide fasteners of varying sizes so that the fastener, in this case the nut can receive different size threaded rods of standardized size and pitch for different applications. The 132 Declaration has been considered regarding this matter but only the Wesley reference was addressed therein whereas the claimed limitations are an obvious in view of the combination of Wesley and Hollinger.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Flemming Saether whose telephone number is 703-308-0182. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann can be reached on 703-306-4115. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Flemming Saether  
Primary Examiner  
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